

Notice of Allowability

Application No.

10/603,564

Examiner

Ling-Siu Choi

Applicant(s)

GORDON ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 08/10/2005.
2. ☒ The allowed claim(s) is/are 3.
3. ☒ The drawings filed on 10 August 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material.
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This Office Action is in response to the Amendment filed August 10, 2005. Claims 1-2 were canceled and claims 3-23 are now pending.

Examiner's Amendment

- 2 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Regelman on August 22, 2005.

3. The application has been amended as follows:
Cancel claims 4-23 without prejudice.

Allowable Subject Matter

4. Claim 3 is allowed.
5. The following is an examiner's statement of reasons for allowance:

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The present claims are allowable over the closest references: Chou (US 4,709,039) and Hildebrand (US 5,063,262).

A polymeric material in the general formula of
$\text{H}-[\text{N}[(\text{CO})\text{R}_1]-\text{CH}_2-\text{CH}_2]_n-[\text{N}[(\text{CO}) \text{ POLYMER 2 }]-\text{CH}_2-\text{CH}_2]_m-\text{X}$
<p>Wherein $\text{R}_1 = [\text{hydrogen, methyl, ethyl, and propyl}]$</p> <p>$\text{X} = [\text{acetate, p-tosylate, halide, sulfate, triflate, and mixtures thereof}]$</p> <p>$\text{POLYMER 2} = \text{a water-insoluble polymeric material having a number average molecular weight in excess of 5,000}$</p>



(summary of claim 1)

Chou discloses a poly [2-ethyloxazoline-*co*-2(2-allyloxy-1-methylethyl)oxazoline] grafted with polyethylene or polystyrene, which is obtained by the steps of (a) condensing 2-(3-hydroxy-2-propyl)oxazoline and allyl chloride to give 2-(2-allyloxy-methylethyl)oxazoline [AO] according to the Williamson ether reaction, (b) copolymerizing 2-ethyloxazoline [EO] and AO to give poly [EO-*co*-AO], and (c) grafting poly[EO-*co*-AO] with polyethylene or polystyrene to result in the graft copolymer. The polyethylene or polystyrene reads on a water-insoluble polymer. However, Chou does not teach or fairly suggest the claimed polymeric material which has carbon mainchain of polymer 2 grafted to polyamine via carbonyl group.

Hildebrand discloses a polymer (2-methyloxazoline-*co*-2-isopropyloxazoline) (Table 1). However, Hildebrand does not teach or fairly suggest a poly (2-alkyloxazoline-*co*-2-**polymer** oxazoline).

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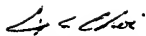
In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI
PRIMARY EXAMINER**

August 22, 2002